

Quantum Field Theory for Philosophers

Transparencies (Note Date Oct 1982)

- 1) Classical concept of field
- 2) Field approach to classical particle physics
- 7) The Two Routes to quantum field theory
- 18) Field quantization
- 19) Field quantization contd.
- 30) Basic review of QFT
- 20) Creation / annihilation operators Fermi
anticommutators
- (21) creation / annihilation operators in 2nd quantization ⇒ ④, ⑤, ⑤a, ⑥, ⑧
2nd quantization photo-multiplication
- 9) Causality in QFT
- (9a) spin-statistics Theorem ⇒ ⑩ parafermions
- (11) Creation / annihilation operators in classical mechanics
- 11a) " — contd — "
- 22) Wave-particle duality
- 12) Matter and force fields
- 13) Statistical weights of 2-particle system
- 14) Quantum statistical mechanics

(15.) The Indistinguishability Principle

23.) The Vacuum.

16.) Virtual particles

\Rightarrow (17) Refutation by Virtual particles.